

LONG BEFORE YOU STEP INTO YOUR SHOWER OR TURN ON YOUR FAUCET, CMUD EMPLOYEES

HAVE WORKED **24** HOURS A DAY, **7** DAYS A WEEK AND **365** DAYS A YEAR TO PROTECT OUR DRINKING WATER AND THOSE WHO USE IT.

OUR (VERY GOOD) RESULTS

Drinking water provided by CMUD meets and exceeds all state and federal drinking water standards.

Our state-certified water treatment operators and nationally accredited lab staff conducted thousands of drinking water tests in 2013, far exceeding the required amount. Even the highest contaminant levels detected were well below federal limits.

OUR SHARED WATER SUPPLY

Mountain Island Lake and Lake Norman are the source waters for CMUD. These surface waters are part of the Catawba River basin, which provides water for more than 1.5 million people in our region. CMUD operates three water treatment plants that collectively clean an average of 100 million gallons a day for 800,000 people in Charlotte, Cornelius, Davidson, Huntersville, Pineville, Matthews and Mint Hill.

We publish this report annually, as required by the EPA, to help customers learn more about our critical water resources. The EPA has allowed us to save rate dollars and distribute the report electronically. To view the report in its entirety, along with past water quality reports, please visit www.cmutilities.com.

CHARLOTTE-MECKLENBURG UTILITY DEPARTMENT ANNUAL COMPLIANCE RESULTS AND AVERAGES OF 2013

CONTAMINANT	LOCATION	MEETS STANDARD	YOUR WATER	EPA LIMIT (MCL)	EPA GOAL (MCLG)	LIKELY SOURCE
MICROBIAL CONTAMINANTS						
Total Coliform (% positive)	Distribution system	✓	0.19% - monthly average 0.66% - highest monthly average	No more than 5% positive/month	0	Naturally present in the environment
E. Coli (% positive)	Distribution system	✓	0 Positive sample	0 (MCL is exceeded if a routine sample and a repeat sample are total coliform positive and one is also fecal or E. Coli positive)	0	Naturally present in the environment
TURBIDITY						
Turbidity (NTU)	Franklin Vest Lee Dukes	✓ ✓ ✓	0.10/100% 0.10/100% 0.10/100%	TT = 0.3 NTU TT = % of samples ≤ 0.3	N/A	Soil runoff
INORGANIC CONTAMINANTS						
Fluoride (ppm)	Franklin Vest Lee Dukes	✓ ✓ ✓	0.69 0.69 0.69	4	4	Erosion of natural deposits;water additive which promotes strong teeth
COPPER & LEAD CONTAMINANTS						
Copper (ppm)	Distribution system	✓	None detected at 90 th percentile	AL = 1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits
Lead (ppb) *3 of 53 sites exceeded Action Levels (AL)	Distribution system	✓	7 ppb detected at 90 th percentile	AL = 1.5	0	
DISINFECTANTS AND DISINFECTION BYPRODUCTS CONTAMINANTS						
Chlorine (ppm)	Franklin Vest Lee Dukes	✓ ✓ ✓	1.30 1.28 1.20	MRDL=4	MRDL G=4	Water additive used to control microbes
THM (ppb) Trihalomethanes	Franklin Vest Lee Dukes Distribution system	✓ ✓ ✓ ✓	59.7	80	N/A	By-product of drinking water chlorination
HAA5 (ppb) Haloacetic Acids	Franklin Vest Lee Dukes Distribution system	✓ ✓ ✓ ✓	17.3	60	N/A	By-product of drinking water disinfection
TOTAL ORGANIC CARBON (TOC)			TREATED Average Removal Ratio (Min-Max)	Compliance Criteria (Min-Max)		
Total Organic Carbon (ppm)	Franklin Vest Lee Dukes	✓ ✓ ✓	1.34 (1.01-1.64) 0.92 (0.92-1.07) 1.19 (0.92-1.45)	ACC#2 Treated < 2.0	Naturally present in the environment	
UNREGULATED CONTAMINANT MONITORING			Reported Level	Low	OBSERVED RANGE	
Strontium (ppb)	Franklin		29.4	29.4	29.4	
	Vest		28.6	28.6	28.6	
	Lee Dukes		30.1	30.1	30.1	
	Distribution system		29.8	29.8	29.8	
Vanadium (ppb)	Franklin		0.67	0.67	0.67	
	Vest		0.55	0.55	0.55	
	Lee Dukes		0.60	0.60	0.60	
	Distribution system		0.68	0.68	0.68	
Total Chromium (ppb)	Distribution system		0.30	0.30	0.30	
Chromium-6 (ppb)	Distribution system		0.073	0.073	0.073	

*mg/L = ppm & ug/L = ppb

Not-Applicable (N/A) Information not applicable/not required for that particular water system or for that particular rule.

Non-Detects (ND) Laboratory analysis indicates that the contaminant is not present at the level of detection set for the particular methodology used.

Parts per million (ppm) or Milligrams per liter (mg/L) One part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter (ug/L) One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Million Fibers per Liter (MFL) Million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.

Nephelometric Turbidity Unit (NTU) Nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Action Level (AL) The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Treatment Technique (TT) A required process intended to reduce the level of a contaminant in drinking water.

Maximum Residual Disinfection Level Goal (MRDLG) The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Maximum Residual Disinfection Level (MRDL) The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Contaminant Level (MCL) The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG) The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Total Organic Carbon (TOC) Has no health effects; however, organics provide a medium for the formation of disinfection byproducts. The TOC compliance criteria applies only to treated water.

Turbidity % Low percentages are a goal for all substances except turbidity. The turbidity rule requires that 95% or more of the monthly samples be less than or equal to 0.3 NTU.

RAA Running Annual Average

PROTECTING THE ENVIRONMENT AND PROVIDING
CLEAN DRINKING WATER
IS A RESPONSIBILITY THAT THE CHARLOTTE-MECKLENBURG UTILITY DEPARTMENT
TAKES VERY SERIOUSLY.

FLUORIDE
Fluoride has been proven
to promote oral health.
Charlotte-Mecklenburg
Utility Department (CMUD)
has added fluoride to our
water since 1949. Fluoride
is added to CMUD tap
water at a concentration
of approximately 0.7
milligrams per liter or
less than 1 part per
million, as recommended
by the American Dental
Association.

The wastewater system, sometimes called sewer,
is not connected to the storm water system. When
you take a shower, wash clothes or flush a toilet, the
wastewater generated from these activities in your
home flows through the wastewater pipe system
to one of five wastewater treatment plants
in Mecklenburg County.

WASTEWATER/SEWER

There, the wastewater is treated to remove solids,
bacteria, nutrients and other pollutants. After much
testing and monitoring, the water is discharged back
into a creek, which flows into one of our rivers. The
removed solids are treated further and then, through
stringently regulated processes, recycled for use as
fertilizer on farmers' fields or landfilled.

Each year, Charlotte-Mecklenburg Utility Department
(CMUD) performs more than 150,000 tests to ensure
the safety and quality of our drinking water, which
regularly meets and exceeds all state and federal
drinking water standards.

Your drinking water system in Charlotte-Mecklenburg
begins with water from Lake Norman or Mountain
Island Lake. This raw water is pumped to one of
three water treatment plants, where it is filtered and
disinfected to become clean drinking water. Then
it travels through more than 4,200 miles of water
mains directly to your home.

DRINKING WATER

WATER AND SEWER:
UNDERSTANDING THE DIFFERENCE



www.cmutilities.com

CLEAN WATER
For a Healthy Community

